# **Complete Summary**

## **TITLE**

Rheumatoid arthritis: percentage of patients with rheumatoid arthritis who have severe pain of the hips or knees, which significantly limits activities despite non-pharmacologic and pharmacologic interventions for whom referral to an orthopedic surgeon is offered unless contraindication to surgery is documented.

# SOURCE(S)

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis. Semin Arthritis Rheum2006;35:211-237.

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. Arthritis Rheum2004 Apr 15;51(2):193-202. <a href="PubMed">PubMed</a>

#### **Measure Domain**

# PRIMARY MEASURE DOMAIN

**Process** 

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the <u>Measure Validity</u> page.

# **SECONDARY MEASURE DOMAIN**

Does not apply to this measure

# **Brief Abstract**

## **DESCRIPTION**

This measure is used to assess the percentage of patients with rheumatoid arthritis who have severe pain of the hips or knees, which significantly limits activities despite non-pharmacologic and pharmacologic interventions for whom referral to an orthopedic surgeon is offered unless contraindication to surgery is documented.

### **RATIONALE**

Reconstructing structurally damaged hip and knee joint architecture relieves pain and restores joint function, thereby restoring the patient's functional status and overall health-related quality of life.

The American College of Rheumatology's (ACR's) guidelines for the management of rheumatology recommend surgical intervention in patients who have "unacceptable levels of pain, loss of range of motion, or limitation of function because of structural joint damage." The Joint Working Group for the British Society for Rheumatology and the Royal College of Physicians recommend in their guidelines and audit measures for RA that "patients should be referred for surgical review when necessary." The National Institutes of Health (NIH) consensus statement on total hip replacement, provides two indications for total hip replacement in patients with RA: 1) moderate-to-severe persistent pain or disability that is not relieved by an extended course of nonsurgical management (including trials of analgesics, non-steroidal anti-inflammatory drugs [NSAIDs], physical therapy [PT], occupational therapy [OT], and "disease-specific therapies") and 2) radiographic evidence of joint damage.

#### PRIMARY CLINICAL COMPONENT

Rheumatoid arthritis; hip or knee pain; orthopedic surgery; referral

## **DENOMINATOR DESCRIPTION**

Patients with a diagnosis of rheumatoid arthritis (RA) who have severe pain of the hips or knees, which significantly limits activities despite non-pharmacologic and pharmacologic interventions

# **NUMERATOR DESCRIPTION**

Patients for whom referral to an orthopedic surgeon is offered unless contraindication to surgery is documented

# **Evidence Supporting the Measure**

## **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- A systematic review of the clinical literature
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

# **Evidence Supporting Need for the Measure**

## **NEED FOR THE MEASURE**

Unspecified

# **State of Use of the Measure**

## **STATE OF USE**

Current routine use

#### **CURRENT USE**

Internal quality improvement

# **Application of Measure in its Current Use**

#### **CARE SETTING**

Ambulatory Care Physician Group Practices/Clinics

## PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

**Physicians** 

#### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

**Individual Clinicians** 

## **TARGET POPULATION AGE**

Unspecified

# **TARGET POPULATION GENDER**

Either male or female

# STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

# **Characteristics of the Primary Clinical Component**

# INCIDENCE/PREVALENCE

Rheumatoid arthritis (RA) affects one percent of the adult population. RA affects approximately 2.5 million Americans, disproportionately women.

# **EVIDENCE FOR INCIDENCE/PREVALENCE**

Alarcon GS. Epidemiology of rheumatoid arthritis. Rheum Dis Clin North Am1995 Aug;21(3):589-604. [144 references] PubMed

Hochberg MC, Spector TD. Epidemiology of rheumatoid arthritis: update. Epidemiol Rev1990;12:247-52. [48 references] PubMed

Hochberg MC. Adult and juvenile rheumatoid arthritis: current epidemiologic concepts. Epidemiol Rev1981;3:27-44. [129 references] <a href="PubMed">PubMed</a>

Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH, Heyse SP, Hirsch R, Hochberg MC, Hunder GG, Liang MH, Pillemer SR, Steen VD, Wolfe F. Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. Arthritis Rheum1998 May;41(5):778-99. PubMed

McDuffie FC. Morbidity impact of rheumatoid arthritis on society. Am J Med1985 Jan 21;78(1A):1-5. <a href="PubMed">PubMed</a>

#### **ASSOCIATION WITH VULNERABLE POPULATIONS**

See the "Incidence/Prevalence" field.

# **BURDEN OF ILLNESS**

Forty percent of patients with early rheumatoid arthritis (RA) (less than six months of symptoms) have erosive disease at presentation and remission is rare (less than 5%).

## **EVIDENCE FOR BURDEN OF ILLNESS**

Hannonen P, Mottonen T, Hakola M, Oka M. Sulfasalazine in early rheumatoid arthritis. A 48-week double-blind, prospective, placebo-controlled study. Arthritis Rheum1993 Nov;36(11):1501-9. PubMed

Harrison BJ, Symmons DP, Brennan P, Barrett EM, Silman AJ. Natural remission in inflammatory polyarthritis: issues of definition and prediction. Br J Rheumatol1996 Nov;35(11):1096-100. [21 references] <a href="PubMed">PubMed</a>

## **UTILIZATION**

Over nine million physician visits and greater than 250,000 hospitalizations are attributed to rheumatoid arthritis (RA) per year.

#### **EVIDENCE FOR UTILIZATION**

Allaire SH, Prashker MJ, Meenan RF. The costs of rheumatoid arthritis. Pharmacoeconomics1994 Dec;6(6):513-22. [69 references] PubMed

Cooper NJ. Economic burden of rheumatoid arthritis: a systematic review. Rheumatology (Oxford)2000 Jan;39(1):28-33. [33 references] PubMed

#### **COSTS**

Rheumatoid arthritis (RA) has significant economic implications for the individual patient, as well as for society. Individuals with RA have 3 times the direct medical costs, twice the hospitalization rate and 10 times the work disability rate on an age- and sex-matched population. A recent study has shown annual medical costs for a patient with RA to be approximately \$8,500. Annual costs rise as the duration of the disease increases and as function declines. Indirect costs related to disability and work loss have been estimated to be 3 times higher than the direct costs associated with the disease.

#### **EVIDENCE FOR COSTS**

American College of Rheumatology Subcommittee on Rheumatoid Arthritis. Guidelines for the management of rheumatoid arthritis: 2002 Update. Arthritis Rheum2002 Feb;46(2):328-46. <a href="PubMed">PubMed</a>

**Institute of Medicine National Healthcare Quality Report Categories** 

## **IOM CARE NEED**

Living with Illness

#### **IOM DOMAIN**

Effectiveness

# **Data Collection for the Measure**

#### **CASE FINDING**

Users of care only

# **DESCRIPTION OF CASE FINDING**

Patients with a diagnosis of rheumatoid arthritis (RA) who have severe pain of the hips or knees, which significantly limits activities despite non-pharmacologic and pharmacologic interventions

# **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

# **DENOMINATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

Patients with a diagnosis of rheumatoid arthritis (RA) who have severe pain of the hips or knees, which significantly limits activities despite non-pharmacologic and pharmacologic interventions

## **Exclusions**

Patients with contraindication to surgery

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

# **DENOMINATOR (INDEX) EVENT**

Clinical Condition

## **DENOMINATOR TIME WINDOW**

Time window is a single point in time

# **NUMERATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

Patients for whom referral to an orthopedic surgeon is offered

#### **Exclusions**

Unspecified

# MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

#### NUMERATOR TIME WINDOW

Encounter or point in time

# **DATA SOURCE**

Administrative data Medical record Pharmacy data

# **LEVEL OF DETERMINATION OF QUALITY**

Individual Case

# PRE-EXISTING INSTRUMENT USED

Unspecified

## **Computation of the Measure**

## **SCORING**

Rate

#### **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

## STANDARD OF COMPARISON

Internal time comparison

# **Evaluation of Measure Properties**

#### **EXTENT OF MEASURE TESTING**

Using a modification of the RAND Corporation/University of California Los Angeles (RAND/UCLA) Appropriateness Method, a multi-disciplinary expert panel comprised of nationally recognized experts in arthritis, primary care, and pain management discussed and rated the validity of each of the proposed measures based on 1) a summary of the evidence to support or refute each proposed measure and 2) their expert opinion.

# **EVIDENCE FOR RELIABILITY/VALIDITY TESTING**

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis [in press]. Semin Arthritis Rheum:1-71.

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. Arthritis Rheum2004 Apr 15;51(2):193-202. PubMed

# **Identifying Information**

## **ORIGINAL TITLE**

Quality indicator 16. Surgery.

# **MEASURE COLLECTION**

The Arthritis Foundation's Quality Indicator Project

# **MEASURE SET NAME**

The Arthritis Foundation's Quality Indicator Set for Rheumatoid Arthritis

#### **SUBMITTER**

Arthritis Foundation

## **DEVELOPER**

Arthritis Foundation RAND Health

## **ADAPTATION**

Measure was not adapted from another source.

## **RELEASE DATE**

2005 Jan

## **MEASURE STATUS**

This is the current release of the measure.

# SOURCE(S)

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis. Semin Arthritis Rheum2006;35:211-237.

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## **MEASURE AVAILABILITY**

The individual measure, "Quality Indicator 16. Surgery," is published in "Measuring Process of Arthritis Care: The Arthritis Foundation's Quality Indicator Set for Rheumatoid Arthritis."

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Web site: www.arthritis.org

OR

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Santa Monica, CA 90407-2138

Telephone: (310) 393-0411, ext. 7775

Web site: <a href="www.rand.org/health">www.rand.org/health</a> E-mail: <a href="mailto:RAND\_Health@rand.org">RAND\_Health@rand.org</a>

# **NQMC STATUS**

This NQMC summary was completed by ECRI on October 24, 2006. The information was verified by the measure developer on February 1, 2007.

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